

RIVER MURRAY FLOW REPORT

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Report #31/2014

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This supersedes the previous flow report issued by the Department of Environment, Water and Natural Resources (DEWNR) on 25 July 2014. The next flow report will be provided on Friday, 8 August 2014.

In this report, for ease of representation, large volumes of water are expressed in gegalitres (GL), while smaller volumes are expressed in megalitres (ML). One GL is equal to 1 000 ML.

FLOW OUTLOOK

The flow at the South Australian border is approximately 14.5 GL/day and will decrease to around 11.5 GL/day before increasing to around 16 GL/day during the coming week, depending on upstream river and storage operations, extractions, and rainfall events. The flow comprises the normal July Entitlement Flow of 3.5 GL/day minus Entitlement Flow that was delivered early (in June), plus unregulated flow.

Construction works at the Lake Victoria outlet regulator will continue into late August 2014. These works are restricting the outlet capacity. DEWNR is working closely with the Murray-Darling Basin Authority and SA Water to manage the flow to South Australia during this time.

The flow over Lock 1 is approximately 14 GL/day and will decrease slightly then return back to around this rate during the coming week, depending on weather conditions and extractions.

It is important to note that flow forecasts in this advice are based on the information available at the time of preparation. They may change as new gauging information becomes available, or due to rainfall events or changed operations upstream. Flow forecasts are dependent on predictions made by the Bureau of Meteorology, Murray-Darling Basin Authority and water management agencies in upstream jurisdictions. They will be revised as new information becomes available.

WEIR POOL OPERATIONS

DEWNR is currently considering opportunities to raise water levels within the Locks 1 and 2 weir pools, commencing in Spring, subject to the availability of unregulated flow. The purpose of a weir pool raising is to mimic natural water level variability, which has been largely removed through river regulation. It is anticipated that the weir pools may be raised up to 0.5 m above normal pool level, or 0.2 m above the maximum normal operating range. The objective is to promote a range of benefits, specifically restoration of ecological function. Further advice in relation to this potential action will be provided in a separate media release.

MANAGEMENT OF SOUTH AUSTRALIA'S DEFERRED WATER

On 1 July 2014, South Australia had deferred 30 GL of its Entitlement Flow into storage to meet critical human water needs use in future dry years and 20 GL for private carryover use in future dry years. The volume of deferred water in the upstream storages is adjusted for net evaporation losses until it is delivered to South Australia. There is currently a high risk of some private carryover water spilling from Lake Victoria. South Australia cannot defer any water while receiving unregulated flow. Therefore South Australia is not proposing to defer any Entitlement Flow in August 2014.

DEWNR is investigating opportunities to defer additional Entitlement Flow during 2014-15.

BARRAGE OPERATIONS AND WATER LEVELS IN THE LOWER LAKES

The water level in Lake Alexandrina is approximately 0.74 m AHD and approximately 0.86 m AHD in Lake Albert. The main reason for the difference is wind effect. Water levels in the Lower Lakes are likely to remain at, or above, current levels during the coming week due to high tide and swell conditions downstream of the barrages. The volume of water in the Lower Lakes is being managed to optimise water availability for continuous barrage releases during winter. SA Water will continue to operate the barrages to minimise any



negative salinity impacts from reverse flow events. When conditions are conducive to opening the barrages, releases will be prioritised through Tauwichee and Goolwa. All fishways are in operation.

DEWNR is currently investigating the feasibility of undertaking a water level cycling event in Lakes Alexandrina and Albert to assist with reducing salinities. This action can be undertaken using the unregulated flow currently being received by South Australia and would involve the Lake Albert water level being maintained at 0.85 m AHD for around a week before reducing the water level to remove higher salinity water. A separate media release and communications will be undertaken on this issue within the next week.

To see live salinity data at various locations on the River Murray and in the Lower Lakes, please refer to the following website: <http://www.waterconnect.sa.gov.au/Systems/RTWD/SitePages/Home.aspx>

Water levels and barrage operations are monitored closely by various agencies of the South Australian Government, Murray-Darling Basin Authority and Commonwealth Environmental Water Office.

WATER QUALITY – Blue-Green Algae

The New South Wales Government (through Regional Algal Coordinating Committees) has a red alert warning for toxic blue-green algae at Balranald on the Murrumbidgee River, where water is unsuitable for recreational and stock watering purposes.

Although toxic blue-green algal blooms pose no threat to South Australia at this stage, the Murray-Darling Basin Authority and the relevant South Australian Government agencies are regularly monitoring the situation.

NAVIGATION ISSUES

Sandbars in the vicinity of the Murray Mouth may cause navigation hazards. Mariners are advised to navigate with caution when operating in the area. Sandbars are also present along sections of the River Murray, downstream of Lock 7 and 8 and in South Australia. All watercraft users should be aware of the risk of submerged navigation hazards, and should regularly check the river depth.

CONSTRUCTION WORKS

Lock 4

Remedial works at Lock 4 commenced on 5 May 2014 and are expected to be completed by mid-August 2014. The works are necessary to improve the structural integrity of the Lock chamber. During this period Lock 4 will be closed to navigation.

Chowilla

Construction of the Chowilla Creek Environmental Regulator and associated structures is nearing completion. For public safety reasons, the Chowilla Creek remains closed to navigation at the construction site at this time.

Lake Victoria Outlet Regulator

Remedial works on the Lake Victoria Outlet Regulator are underway and expected to be completed in late August 2014. The works are necessary to improve the structural integrity of the regulator.

Camping is not allowed in the area immediately downstream of the regulator during the construction period. There are alternate camping sites nearby, along Rufus River.

Lock 11

The mechanised gates at Lock 11 (Mildura) are now installed and the weir pool is being reinstated.

RIVER MURRAY WATER LEVELS

Below is a table of River Murray water levels at a number of locations from Lock 10 (near Wentworth) to Murray Bridge.

River Murray Water Levels on 30 July 2014

Location	River km	Normal Pool Level	Current Level (m AHD)	1974 Flood Level (m AHD)	1993 Flood Level (m AHD)
Lock 10	825.0	30.80	30.77	33.81	33.32
Lock 9 Kulnine	764.8	27.40	27.40	30.03	29.44
Lock 8 Wangumma	725.7	24.60	24.67	27.60	27.19
Lock 7 Rufus River	696.6	22.10	22.18	25.70	25.24
Lock 6 Murtho	619.8	19.25	19.26	21.03	20.50
Renmark	567.4	-	-	18.54	18.04
Lock 5	562.4	16.30	16.31	18.07	17.50
Lyrup	537.8	-	-	16.85	16.26
Berri	525.9	-	13.27	15.81	15.74
Lock 4	516.2	13.20	13.25	15.65	15.08
Loxton	489.9	-	10.45	15.05	14.12
Cobdogla	446.9	-	-	13.44	12.38
Lock 3	431.4	9.80	9.87	13.16	12.02
Overland Corner	425.9	-	6.60	12.73	11.58
Waikerie	383.6	-	6.33	11.26	10.24
Lock 2	362.1	6.10	6.15	10.28	9.30
Cadell	332.6	-	3.54	9.17	8.08
Morgan	321.7	-	3.43	8.85	7.65
Lock 1 Blanchetown	274.2	3.20	3.25	6.81	5.38
Swan Reach	245.0	0.75	0.83	6.06	4.51
Mannum PS	149.8	0.75	0.74	3.15	1.90
Murray Bridge	115.3	0.75	0.69	2.06	1.26

Note that the above water levels may be affected by local wind conditions.

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FURTHER INFORMATION

The WaterConnect website is South Australia's comprehensive water information portal and can be accessed at: <http://www.waterconnect.sa.gov.au>

Up-to-date River Murray flow and water level information can be accessed at the Department of Environment, Water and Natural Resources, SA Water and Murray-Darling Basin Authority websites:

<http://www.waterconnect.sa.gov.au/Systems/RTWD/SitePages/Home.aspx>

www.sawater.com.au/SAWater/Environment/TheRiverMurray/River+Murray+Levels.htm

<http://www.mdba.gov.au/river-data/live-river-data>

The Department of Environment, Water and Natural Resources has published a series of inundation maps for the River Murray. They are available at: <http://www.waterconnect.sa.gov.au/Systems/RMIM/Pages/default.aspx>

Information on the management of acid drainage water in the Lower River Murray can be accessed online at:

http://www.epa.sa.gov.au/environmental_info/water_quality/acid_sulfate_soils_ass/lower_river_murray_reclaimed_irrigation_area_lmria

Details of river height and rainfall information in the River Murray within Victoria and New South Wales are available at the Bureau of Meteorology website: <http://www.bom.gov.au/vic/flood>

Information provided by the Commonwealth Environmental Water Office can be accessed at:

www.environment.gov.au/ewater/southern/murray/lower-murray.html

Information on The Living Murray can be accessed at:

<http://www.mdba.gov.au/about-basin/environmental-sites>

Information is also available from the SA Water Hotline on **08 8595 2299**

Department of Environment, Water and Natural Resources

<http://www.environment.sa.gov.au/Home>

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